ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

chain bonds :

2-8 4-7 6-9

ring bonds :

 $1-2 \ 1-6 \ 2-3 \ 3-4 \ 4-5 \ 5-6 \ 7-10 \ 7-14 \ 8-15 \ 8-19 \ 9-20 \ 9-24 \ 10-11 \ 11-12 \ 12-13 \ 13-14 \ 15-16 \ 16-17 \ 17-18 \ 18-19 \ 20-21 \ 21-22 \ 22-23 \ 23-24$ 

exact bonds :

2-8 4-7 6-9

normalized bonds :

 $1-2 \ 1-6 \ 2-3 \ 3-4 \ 4-5 \ 5-6 \ 7-10 \ 7-14 \ 8-15 \ 8-19 \ 9-20 \ 9-24 \ 10-11 \ 11-12 \ 12-13 \ 13-14 \ 15-16 \ 16-17 \ 17-18 \ 18-19 \ 20-21 \ 21-22 \ 22-23 \ 23-24$ 

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom

36 ANSWERS

L1 STRUCTURE UPLOADED

 $\Rightarrow$  s 11 sss sam

SAMPLE SEARCH INITIATED 10:00:51 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 352 TO ITERATE

100.0% PROCESSED 352 ITERATIONS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 5915 TO 8165 PROJECTED ANSWERS: 360 TO 1080

L2 36 SEA SSS SAM L1

 $\Rightarrow$  s 11 sss full

FULL SEARCH INITIATED 10:01:08 FILE 'REGISTRY'

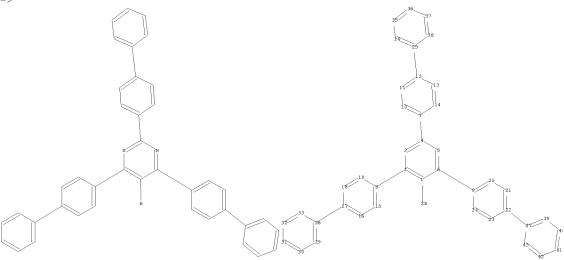
FULL SCREEN SEARCH COMPLETED -7394 TO ITERATE

100.0% PROCESSED 7394 ITERATIONS

SEARCH TIME: 00.00.01

665 SEA SSS FUL L1 L3

=>



chain nodes :

28

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43

665 ANSWERS

chain bonds :

1-28 2-8 4-7 6-9 12-25 17-26 22-27

ring bonds :

 $1-2 \ 1-6 \ 2-3 \ 3-4 \ 4-5 \ 5-6 \ 7-10 \ 7-14 \ 8-15 \ 8-19 \ 9-20 \ 9-24 \ 10-11 \ 11-12 \ 12-13 \ 13-14 \ 15-16 \ 16-17 \ 17-18 \ 18-19$ 20-21 21-22 22-23 23-24 25-34 25-38 26-29 26-33 27-39 27-43 29-30 30-31 31-32 32-33 34-35 35-36 36-37 37-38 39-40 40-41 41-42 42-43

exact bonds :

1-28 2-8 4-7 6-9 12-25 17-26 22-27

normalized bonds :

 $1-2 \ 1-6 \ 2-3 \ 3-4 \ 4-5 \ 5-6 \ 7-10 \ 7-14 \ 8-15 \ 8-19 \ 9-20 \ 9-24 \ 10-11 \ 11-12 \ 12-13 \ 13-14 \ 15-16 \ 16-17 \ 17-18 \ 18-19$  $20-21 \ 21-22 \ 22-23 \ 23-24 \ 25-34 \ 25-38 \ 26-29 \ 26-33 \ 27-39 \ 27-43 \ 29-30 \ 30-31 \ 31-32 \ 32-33 \ 34-35 \ 35-36 \ 36-37 \ 36-3$ 37-38 39-40 40-41 41-42 42-43

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:CLASS 29:Atom 30:Atom 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom 37:Atom 38:Atom 39:Atom 40:Atom 41:Atom 42:Atom 43:Atom

SAMPLE SEARCH INITIATED 10:05:26 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED -16 TO ITERATE

100.0% PROCESSED 1 ANSWERS 16 ITERATIONS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\* BATCH \*\*COMPLETE\*\* PROJECTED ITERATIONS: 80 TO 560

PROJECTED ANSWERS: 1 TO

1 SEA SSS SAM L4

=> s 14 sss full

FULL SEARCH INITIATED 10:05:30 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 379 TO ITERATE

100.0% PROCESSED 379 ITERATIONS 9 ANSWERS

SEARCH TIME: 00.00.01

9 SEA SSS FUL L4

=> d scan 16

# L6 9 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN

Author/Inventor

9H-Carbazole, 3,3',3"-[2,4,6-pyrimidinetriyltris(2,5-dimethyl-4,1- phenylene)]tris[6-methyl-9-phenyl- (9Cl)

=> s 16 Ь7 4 L6 => d 17 ibib hitstr

# L7 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Preparation of biscarbazole derivatives as charge-transporting materials, and organic electroluminescent elements

Author/Inventor

Yabe, Masayoshi; Sato, Hideki

Patent Assignee/Corporate Source

Pioneer Corporation, Japan; Mitsubishi Chemical Corporation

Source

PCT Int. Appl., 137 pp. CODEN: PIXXD2

Document Type Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006067976	A1	20060629	WO 2005-JP22635	20051209

Patent Number (1)

WO 2006067976

Kind Code (1)

Α1

Patent Publication Date (1)

20060629

Application Number (1)

WO 2005-JP22635

Application Date (1)

20051209

Priority Patent Number (1)

JP 2004-373981

Priority Kind Code (1) Α

Priority Patent Publication Date (1)

20041224

=> d 17 2-4 ibib hitstr

# L7 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Organic electroluminescent device and display

Author/Inventor

Fukuda, Mitsuhiro; Kita, Hiroshi; Yamada, Taketoshi

Patent Assignee/Corporate Source

Konica Minolta Holdings, Inc., Japan

Source

U.S. Pat. Appl. Publ., 37 pp. CODEN: USXXCO

Document Type

Patent

Language

English

Patent Information

F	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
π	JS 2004110031	A1	20040610	US 2003-718360	20031120

Patent Number (1)

US 2004110031

Kind Code (1)

ΑÍ

Patent Publication Date (1)

20040610

Application Number (1)

US 2003-718360

Application Date (1)

20031120

Priority Patent Number (1)

JP 2002-342192

Priority Kind Code (1)

Α

Priority Patent Publication Date (1)

20021126

#### L7 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Electroluminescent devices comprising pyrimidine derivatives

Author/Inventor

Schaefer, Thomas; Bujard, Patrice; Rogers, Jonathan; Bardon, Kristina

Patent Assignee/Corporate Source

Ciba Specialty Chemicals Holding Inc., USA

Source

PCT Int. Appl., 102 pp. CODEN: PIXXD2

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004039786	A1	20040513	WO 2003-EP11637	20031021

Patent Number (1)

WO 2004039786

Kind Code (1)

Αi

Patent Publication Date (1)

20040513

Application Number (1)

WO 2003-EP11637

Application Date (1)

20031021

Priority Patent Number (1)

GB 2002-25244

Priority Kind Code (1)

Priority Patent Publication Date (1)

20021030

# L7 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Organic electroluminescent device and display

Author/Inventor

Matsuura, Mitsunobu; Yamada, Taketoshi; Kita, Hiroshi

Patent Assignee/Corporate Source

Konica Minolta Holdings Inc., Japan

Source

Jpn. Kokai Tokkyo Koho, 34 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004031004	Α	20040129	JP 2002-182682	20020624

```
Patent Number (1)
        JP 2004031004
Kind Code (1)
Patent Publication Date (1)
        20040129
Application Number (1)
        JP 2002-182682
Application Date (1)
        20020624
Priority Patent Number (1)
        JP 2002-182682
Priority Kind Code (1)
        АЗ
Priority Patent Publication Date (1)
        20020624
=> d his
     (FILE 'HOME' ENTERED AT 10:00:18 ON 11 MAR 2008)
     FILE 'REGISTRY' ENTERED AT 10:00:35 ON 11 MAR 2008
                 STRUCTURE UPLOADED
T.1
              36 S L1 SSS SAM
L2
L3
             665 S L1 SSS FULL
                 STRUCTURE UPLOADED
L4
               1 S L4 SSS SAM
L5
1.6
               9 S L4 SSS FULL
     FILE 'CAPLUS' ENTERED AT 10:05:53 ON 11 MAR 2008
{
m L}\,7
               4 S L6
=> s 13
            190 L3
Г8
=> s 18 and py<=2003
      23979567 PY<=2003
            131 L8 AND PY<=2003
=> s 19 and electrolumin
=> s 19 and electrolumin?
          79402 ELECTROLUMIN?
              4 L9 AND ELECTROLUMIN?
```

# L10 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Carbazole derivative for organic electroluminescent devices and organic electroluminescent devices

Author/Inventor

lwakuma, Toshihiro; Yamamoto, Hiroshi; Hironaka, Yoshio; Ikeda, Hidetsugu; Hosokawa, Chishio; Tomita, Seiji; Arakane, Takashi Patent Assignee/Corporate Source

Idemitsu Kosan Co., Ltd., Japan

Source

PCT Int. Appl., 68 pp. CODEN: PIXXD2

Document Type

Patent

=> d 110 1-4 ibib hitstr

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003080760	A1	20031002	WO 2003-JP3329	20030319

```
Patent Number (1)
WO 2003080760
Kind Code (1)
A1
Patent Publication Date (1)
20031002
Application Number (1)
WO 2003-JP3329
Application Date (1)
20030319
Priority Patent Number (1)
JP 2002-81234
Priority Kind Code (1)
A
Priority Patent Publication Date (1)
20020322
```

### L10 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Organic electroluminescent devices

Author/Inventor

Suzuki, Koichi

Patent Assignee/Corporate Source

Canon Inc., Japan

Source

Jpn. Kokai Tokkyo Koho, 26 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003109763	<u>A</u>	<u>20030411</u>	<u>JP 2001-300546</u>	<u>20010928</u>

Patent Number (1)

JP 2003109763

Kind Code (1)

Α

Patent Publication Date (1)

20030411

Application Number (1)

JP 2001-300546

Application Date (1)

20010928

Priority Patent Number (1)

JP 2001-300546

Priority Patent Publication Date (1)

20010928

# L10 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Aromatic heterocyclic derivatives and organic electroluminescent device using them

Author/Inventor

Matsuura, Mitsunobu; Yamada, Taketoshi; Kita, Hiroshi

Patent Assignee/Corporate Source

Konica Co., Japan

Source

Jpn. Kokai Tokkyo Koho, 38 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003045662	Α	20030214	JP 2001-233461	20010801

Patent Number (1)

JP 2003045662

Kind Code (1)

Α`

Patent Publication Date (1)

20030214

```
Application Number (1)
JP 2001-233461
Application Date (1)
20010801
Priority Patent Number (1)
JP 2001-233461
Priority Patent Publication Date (1)
20010801
```

### L10 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Electroluminescent devices

Author/Inventor

Sakon, Yohta; Ohnuma, Teruyuki; Hashimoto, Mitsuru; Saito, Shogo; Tsutsui, Tetsuo; Adachi, Chihaya

Patent Assignee/Corporate Source

Ricoh Co., Ltd., Japan

Source

U.S., 59 pp. CODEN: USXXAM

Document Type

Patent

Language

English Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>US 5077142</u>	<u>A</u>	<u>19911231</u>	<u>US 1990-511407</u>	<u>19900419</u>

Patent Number (1)

US 5077142

Kind Code (1)

Α

Patent Publication Date (1)

19911231

Application Number (1)

US 1990-511407

Application Date (1)

19900419

Priority Patent Number (1)

JP 1989-102057

Priority Kind Code (1)

Α

Priority Patent Publication Date (1)

19890420

=>

=> =>

=

chain nodes :

28

ring nodes :

40 41 42 43

chain bonds :

1-28 2-8 4-7 6-9 12-25 17-26 22-27

ring bonds :

exact/norm bonds :

1-2 1-6 1-28 2-3 2-8 3-4 4-5 4-7 5-6 6-9 12-25 17-26 22-27

normalized bonds :

 $7-10 \quad 7-14 \quad 8-15 \quad 8-19 \quad 9-20 \quad 9-24 \quad 10-11 \quad 11-12 \quad 12-13 \quad 13-14 \quad 15-16 \quad 16-17 \quad 17-18 \quad 18-19 \quad 20-21 \quad 21-22 \quad 22-23 \quad 23-24 \quad 25-34 \quad 25-38 \quad 26-29 \quad 26-33 \quad 27-39 \quad 27-43 \quad 29-30 \quad 30-31 \quad 31-32 \quad 32-33 \quad 34-35 \quad 35-36 \quad 36-37 \quad 37-38 \quad 39-40 \quad 40-41 \quad 41-42 \quad 42-43$ 

G1:C,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:CLASS 29:Atom 30:Atom 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom 37:Atom 38:Atom 39:Atom 40:Atom 41:Atom 42:Atom 43:Atom

6 ANSWERS

194 ANSWERS

L11 STRUCTURE UPLOADED

=> s 111 sss sam

SAMPLE SEARCH INITIATED 10:58:58 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 3742 TO ITERATE

53.4% PROCESSED 2000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 71172 TO 78508 PROJECTED ANSWERS: 23 TO 425

L12 6 SEA SSS SAM L11

=> s 111 sss full

FULL SEARCH INITIATED 10:59:03 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 76257 TO ITERATE

100.0% PROCESSED 76257 ITERATIONS

SEARCH TIME: 00.00.01

L13 194 SEA SSS FUL L11

=> s 113

L14 130 L13

=> s 114 and py<=2003 23979567 PY<=2003

L15 78 L14 AND PY<=2003

=> s 115 and electrolumin? 79402 ELECTROLUMIN?

L16 17 L15 AND ELECTROLUMIN?

### L16 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Organic electroluminescent device and display with phenyl pyridine derivative

Author/Inventor

Kita, Hiroshi; Yamada, Taketoshi; Matsuura, Mitsunobu; Inoue, Yoshio; Oi, Shuichi; Takayama, Shoichi

Patent Assignee/Corporate Source

Konica Co., Japan

Source

Jpn. Kokai Tokkyo Koho, 26 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003282270	<u>A</u>	20031003	JP 2002-82918	20020325

Patent Number (1)

JP 2003282270

Kind Code (1)

Δ

Patent Publication Date (1)

20031003

Application Number (1)

JP 2002-82918

Application Date (1)

20020325

Priority Patent Number (1)

JP 2002-82918

Priority Patent Publication Date (1)

20020325

### L16 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Organic <u>electroluminescent</u> devices showing various emission color and high brightness with low impress voltage

Author/Inventor

Suzuki, Koichi; Senoo, Akihiro

Patent Assignee/Corporate Source

Canon Inc., Japan

Source

Jpn. Kokai Tokkyo Koho, 29 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>JP 2003105332</u>	<u>A</u>	<u>20030409</u>	<u>JP 2001-299531</u>	<u>20010928</u>

Patent Number (1)

JP 2003105332

Kind Code (1)

^

Patent Publication Date (1)

20030409

Application Number (1)

JP 2001-299531

Application Date (1)

20010928

Priority Patent Number (1)

JP 2001-299531

Priority Patent Publication Date (1)

20010928

# L16 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Title

A Novel Class of Emitting Amorphous Molecular Materials with Bipolar Character for Electroluminescence

Author/Inventor

Doi, Hidekaru; Kinoshita, Motoi; Okumoto, Kenji; Shirota, Yasuhiko

Patent Assignee/Corporate Source

Department of Applied Chemistry, Faculty of Engineering, Osaka University, Yamadaoka, Suita, Osaka, 565-0871, Japan

Source

Chemistry of Materials (2003), 15(5), 1080-1089 CODEN: CMATEX; ISSN: 0897-4756

Document Type

Journal

Language

English

L16 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Title

**Electroluminescent** element

Author/Inventor

Igarashi, Tatsuya; Qiu, Xuepeng

Patent Assignee/Corporate Source

Fuji Photo Film Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 13 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003027048	<u>A</u>	20030129	<u>JP 2001-211270</u>	<u>20010711</u>

Patent Number (1)

JP 2003027048

Kind Code (1)

Α

Patent Publication Date (1)

20030129

Application Number (1)

JP 2001-211270

Application Date (1)

20010711

Priority Patent Number (1)

JP 2001-211270

Priority Kind Code (1)

Α

Priority Patent Publication Date (1)

20010711

#### L16 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Title

New class of hole-blocking amorphous molecular materials and their application in blue-violet-emitting fluorescent and greenemitting phosphorescent organic <u>electroluminescent</u> devices

Author/Inventor

Okumoto, Kenji; Shirota, Yasuhiko

Patent Assignee/Corporate Source

Department of Applied Chemistry, Faculty of Engineering, Osaka University, Yamadaoka, Suita, Osaka, 565-0871, Japan

Source

Chemistry of Materials (2003), 15(3), 699-707 CODEN: CMATEX; ISSN: 0897-4756

Document Type

Journal

Language

English

# L16 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Titl∈

Organic <u>electroluminescent</u> device containing aromatic condensed ring compound

Author/Inventor

Suzuki, Koichi; Senoo, Akihiro; Tanabe, Hiroshi

Patent Assignee/Corporate Source

Canon Inc., Japan

Source

Jpn. Kokai Tokkyo Koho, 50 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002329580	<u>A</u>	20021115	<u>JP 2002-36804</u>	20020214

Patent Number (1)

JP 2002329580

Kind Code (1)

А

Patent Publication Date (1)

20021115

Application Number (1)

JP 2002-36804

Application Date (1)

20020214

Priority Patent Number (1)

JP 2001-46225

Priority Kind Code (1)

Priority Patent Publication Date (1)

20010222

### L16 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Electroluminescent device with arylene derivatives

Author/Inventor

Igarashi, Tatsuya

Patent Assignee/Corporate Source

Fuji Photo Film Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 24 pp. CODEN: JKXXAF

Document Type

Patent

Language Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002324677	<u>A</u>	20021108	JP 2001-129571	20010426

Patent Number (1)

JP 2002324677

Kind Code (1)

Patent Publication Date (1)

20021108

Application Number (1)

JP 2001-129571

Application Date (1)

20010426

Priority Patent Number (1)

JP 2001-129571

Priority Patent Publication Date (1)

20010426

## L16 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Development of hole-blocking amorphous molecular materials and their application in organic light-emitting diodes

Author/Inventor

Shirota, Yasuhiko; Kinoshita, Motoi; Okumoto, Kenji

Patent Assignee/Corporate Source

Department of Applied Chemistry, Faculty of Engineering, Osaka University, Yamadaoka, Suita, Osaka, 565-0871, Japan

Source

Proceedings of SPIE-The International Society for Optical Engineering (2002), 4464(Organic Light-Emitting Materials and Devices V), 203-210 CODEN: PSISDG; ISSN: 0277-786X

Document Type

Journal

Language

English

# L16 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Benzene tri-substituted with hydrocarbon aromatic condensed ring for organic LED devices

Author/Inventor

Kohama, Toru; Nishiyama, Takuya; Kitazawa, Daisuke

Patent Assignee/Corporate Source

Toray Industries, Inc., Japan

Source

Jpn. Kokai Tokkyo Koho, 8 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002050481	<u>A</u>	20020215	JP 2000-236645	<u>20000804</u>

Patent Number (1)

JP 2002050481

Kind Code (1)

Patent Publication Date (1)

20020215

Application Number (1)

JP 2000-236645

Application Date (1)

20000804

Priority Patent Number (1)

JP 2000-236645

Priority Patent Publication Date (1)

20000804

### L16 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Development of high-performance blue-violet-emitting organic electroluminescent devices

Author/Inventor

Okumoto, Kenji; Shirota, Yasuhiko

Patent Assignee/Corporate Source

Department of Applied Chemistry, Faculty of Engineering, Osaka University, Yamadaoka, Suita, Osaka, 565-0871, Japan

Source

Applied Physics Letters (2001), 79(9), 1231-1233 CODEN: APPLAB; ISSN: 0003-6951

Document Type

Journal

Language English

## L16 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Novel starshaped molecules based on fluorene

Author/Inventor

Kreger, K.; Jandke, M.; Strohriegl, P.

Patent Assignee/Corporate Source

Makromolekulare Chemie I und Bayreuther Institut fur Makromolekulfoschung(BIMF), Universitatsstrasse 30, Universitat Bayreuth,

Bayreuth, 95448, Germany

Synt

Source

Synthetic Metals (2001), 119(1-3), 163-164 CODEN: SYMEDZ; ISSN: 0379-6779

Document Type

Journal

Language English

# L16 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Amino or styryl compound, organic thin film, and electroluminescent device

Author/Inventor

Hosokawa, Chishio; Funahashi, Masakazu; Azuma, Hisahiro; Ikeda, Shuji; Arai, Hiromasa

Patent Assignee/Corporate Source

Idemitsu Kosan Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 30 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000273056	Α	20001003	JP 1999-352216	19991210

Patent Number (1)

JP 2000273056

Kind Code (1)

Α

Patent Publication Date (1)

20001003

Application Number (1)

JP 1999-352216

Application Date (1)

19991210

Priority Patent Number (1)

JP 1999-10660

Priority Kind Code (1)

Priority Patent Publication Date (1)

19990119

# L16 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Aromatic amino compounds, their preparation, and uses in electroluminescent element or electrophotographic photoreceptor

Author/Inventor

Fujino, Yasumitsu; Ueda, Hideaki; Furukawa, Keiichi

Patent Assignee/Corporate Source

Minolta Camera Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 35 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000247932	Α	20000912	JP 1999-52513	19990301

Patent Number (1)

JP 2000247932

Kind Code (1)

Patent Publication Date (1)

20000912

Application Number (1)

JP 1999-52513

Application Date (1)

19990301

Priority Patent Number (1)

JP 1999-52513

Priority Patent Publication Date (1)

19990301

### L16 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Amino compound, manufacture of the compound, and its use in electrophotographic photoconductor and <u>electroluminescent</u> device

Author/Inventor

Fujino, Yasumitsu; Ueda, Hideaki; Furukawa, Keiichi

Patent Assignee/Corporate Source

Minolta Camera Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 32 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

 Patent Information

 PATENT NO.
 KIND
 DATE
 APPLICATION NO.
 DATE

 JP 2000169448
 A
 20000620
 JP 1998-346820
 19981207

Patent Number (1)

JP 2000169448

```
Kind Code (1)

A
Patent Publication Date (1)
20000620
Application Number (1)
JP 1998-346820
Application Date (1)
19981207
Priority Patent Number (1)
JP 1998-346820
Priority Patent Publication Date (1)
19981207
```

# L16 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Trisbenzoazole compound for electroluminescent material

Author/Inventor

Sato, Tadahisa

Patent Assignee/Corporate Source

Fuji Photo Film Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 16 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11279165	<u>A</u>	<u>19991012</u>	<u>JP 1998-84758</u>	<u>19980330</u>

Patent Number (1)
JP 11279165
Kind Code (1)
A
Patent Publication Date (1)
19991012
Application Number (1)
JP 1998-84758
Application Date (1)

19980330

Priority Patent Number (1)

IP 1008-84758

JP 1998-84758

Priority Patent Publication Date (1)

19980330

## L16 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Title

A blue-emitting organic <u>electroluminescent</u> device using a novel emitting amorphous molecular material, 5,5'-bis(dimesitylboryl)-2,2'-bithiophene

Author/Inventor

Noda, Tetsuya; Ogawa, Hiromitsu; Shirota, Yasuhiko

Patent Assignee/Corporate Source

Dep. Appl. Chem., Fac. Eng., Osaka Univ., Suita, 565, Japan

Source

Advanced Materials (Weinheim, Germany) (1999), 11(4), 283-285 CODEN: ADVMEW; ISSN: 0935-9648

Document Type

Journal

Language

English

# L16 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Synthesis of Soluble, Blue-Light-Emitting Rigid-Rod Polyamides and Polyimides Prepared from 2',6',3''',5'''-Tetraphenyl- or Tetra(4-Biphenylyl)-4, 4'''-diamino-p-quinquephenyl

Author/Inventor

Spiliopoulos, Ioakim K.; Mikroyannidis, John A.

Patent Assignee/Corporate Source

Chemical Technology Laboratory Department of Chemistry, University of Patras, Patras, GR-26500, Greece

Source

Macromolecules (1998), 31(2), 515-521 CODEN: MAMOBX; ISSN: 0024-9297

Document Type

```
=> s pyrimidine
          57493 PYRIMIDINE
          16133 PYRIMIDINES
L17
          63763 PYRIMIDINE
                    (PYRIMIDINE OR PYRIMIDINES)
=> s 117 and electrolumin?
           79402 ELECTROLUMIN?
L18
              57 L17 AND ELECTROLUMIN?
=> s 118 and py<=2003
       23979567 PY<=2003
              25 L18 AND PY<=2003
L19
=> d l19 ibib
L19 ANSWER 1 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
Title
         Organic light-emitting diode devices with improved operational stability
Author/Inventor
         Jarikov, Viktor V.
Patent Assignee/Corporate Source
         Eastman Kodak Company, USA
Source
         U.S. Pat. Appl. Publ., 108 pp., Cont.-in-part of U.S. Ser. No. 131,801, abandoned. CODEN: USXXCO
Document Type
        Patent
Language
         English
Patent Information
                                           APPLICATION NO.
PATENT NO.
                     KIND
                            DATE
                                                                   DATE
US 2004076853
                             20040422
                                           US 2003-634324
                                                                   20030805
                     Α1
Patent Number (1)
         US 2004076853
Kind Code (1)
Patent Publication Date (1)
         20040422
Application Number (1)
         US 2003-634324
Application Date (1)
         20030805
Priority Patent Number (1)
         US 2002-131801
Priority Kind Code (1)
         B2
Priority Patent Publication Date (1)
         20020424
=> d l19 2-25 ibib
L19 ANSWER 2 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
Title
         New pyrimidine - and fluorene-containing oligo(arylene)s: synthesis, crystal structures, optoelectronic properties and a theoretical
         study
Author/Inventor
         Hughes, Gregory; Wang, Changsheng; Batsanov, Andrei S.; Fern, Michael; Frank, Stephen; Bryce, Martin R.; Perepichka, Igor F.;
         Monkman, Andrew P.; Lyons, Benjamin P.
Patent Assignee/Corporate Source
         Department of Chemistry, University of Durham, Durham, DH1 3LE, UK
Source
         Organic & Biomolecular Chemistry (2003), 1(17), 3069-3077 CODEN: OBCRAK; ISSN: 1477-0520
Document Type
         Journal
Language
```

Journal

English

English

Language

### L19 ANSWER 3 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Synthesis, photoluminescence and electroluminescence of new 1H-pyrazolo[3,4-b]quinoxaline derivatives

Author/Inventor

Wang, Pengfei; Xie, Zhiyuan; Hong, Ziruo; Tang, Jianxin; Wong, Oiyan; Lee, Chun-Sing; Wong, Ningbew; Lee, Shuittong

Patent Assignee/Corporate Source

Centre of Super-Diamond and Advance Films (COSDAF) and Department of Physics and Materials Sciences, City University of Hong Kong, Hong Kong, SAR, Peop. Rep. China

Source

Journal of Materials Chemistry (2003), 13(8), 1894-1899 CODEN: JMACEP; ISSN: 0959-9428

Document Type

Journal

Language

English

# L19 ANSWER 4 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Organic electroluminescent device

Author/Inventor

Saito, Akito; Tanabe, Hiroshi; Ueno, Kazunori

Patent Assignee/Corporate Source

Canon Inc., Japan

Source

Jpn. Kokai Tokkyo Koho, 23 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003123973	Α	20030425	JP 2001-311596	20011009

Patent Number (1)

JP 2003123973

Kind Code (1)

Patent Publication Date (1)

20030425

Application Number (1)

JP 2001-311596

Application Date (1)

20011009

Priority Patent Number (1)

JP 2001-311596

Priority Patent Publication Date (1)

20011009

# L19 ANSWER 5 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Method for dissolving carbon nanotubes

Author/Inventor

Sun, Yi; Wilson, Stephen

Patent Assignee/Corporate Source

New York University, USA

Source

PCT Int. Appl., 43 pp. CODEN: PIXXD2

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002088025	<u>A1</u>	20021107	WO 2002-US13193	20020426

Patent Number (1)

WO 2002088025

Kind Code (1)

Patent Publication Date (1)

20021107

Application Number (1)

WO 2002-US13193

Application Date (1)

20020426

Priority Patent Number (1)

US 2001-286340P

Priority Kind Code (1)

Р

Priority Patent Publication Date (1)

20010426

### L19 ANSWER 6 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Highly bright blue organic light-emitting devices using spirobifluorene-cored conjugated compounds

Author/Inventor

Wu, C. C.; Lin, Y. T.; Chiang, H. H.; Cho, T. Y.; Chen, C. W.; Wong, K. T.; Liao, Y. L.; Lee, G. H.; Peng, S. M.

Patent Assignee/Corporate Source

Graduate Institute of Electronics Engineering, Graduate Institute of Electro-Optical Engineering, Department of Electrical Engineering, National Taiwan University, Taipei, 10617, Taiwan

Source

Applied Physics Letters (2002), 81(4), 577-579 CODEN: APPLAB; ISSN: 0003-6951

Document Type

Journal

Language

English

#### L19 ANSWER 7 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Synthesis of light-emitting  $\pi$ -conjugated poly(pyrimido[5,4-d]-<u>pyrimidine</u> -2,6-diyl) with bulky side chains and high molecular weight

Author/Inventor

Lee, Bang-Lin; Yamamoto, Takakazu

Patent Assignee/Corporate Source

Chemical Resources Laboratory, Tokyo Institute of Technology, Midori-ku, Yokohama, 226-8503, Japan

Source

Polymer (2002), 43(16), 4531-4534 CODEN: POLMAG; ISSN: 0032-3861

Document Type

Journal

Language

English

# L19 ANSWER 8 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Mixed vapor deposited films for electroluminescent devices

Author/Inventor

Forrest, Stephen Ross; Thompson, Mark Edward; Burrows, Paul Edward; McCarty, Dennis Matthew; Sapochak, Linda Susan;

Cronin, Jon Andrew

Patent Assignee/Corporate Source

The Trustees of Princeton University, USA

Source

 $U.S.,\,47~pp.,\,Cont.\hbox{-in-part of }U.S.\,5,707,745.\;CODEN:\,USXXAM$ 

Document Type

Patent

Language

English
Patent Information

r atent information						
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
US 6358631	B1	20020319	US 1996-693359	19960806		

Patent Number (1)

US 6358631

Kind Code (1)

Βì

Patent Publication Date (1)

20020319 Application Number (1)

US 1996-693359 Application Date (1)

199608Ò6

Priority Patent Number (1)

US 1994-354674

Priority Kind Code (1)

Α2

Priority Patent Publication Date (1) 19941213

### L19 ANSWER 9 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Suzuki Coupling Approach for the Synthesis of Phenylene-<u>Pyrimidine</u> Alternating Oligomers for Blue Light-Emitting Material Author/Inventor

Wong, Ken-Tsung; Hung, Tsung Shi; Lin, Yuting; Wu, Chung-Chih; Lee, Gene-Hsiang; Peng, Shie-Ming; Chou, Chung Hsien; Su, Yuhlong Oliver

Patent Assignee/Corporate Source

Department of Chemistry and Graduate Institute of Electro-Optical Engineering, National Taiwan University, Taipei, 106, Taiwan

Source

Organic Letters (2002), 4(4), 513-516 CODEN: ORLEF7; ISSN: 1523-7060

Document Type

Journal

Language

English

### L19 ANSWER 10 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

New electron-transporting materials for light emitting diodes: 1,3,4-oxadiazole-pyridine and 1,3,4-oxadiazole-pyrimidine hybrids

Author/Inventor

Wang, Changsheng; Jung, Gun-Young; Batsanov, Andrei S.; Bryce, Martin R.; Petty, Michael C.

Patent Assignee/Corporate Source

Department of Chemistry, University of Durham, Durham, DH1 3LE, UK

Source

Journal of Materials Chemistry (2002), 12(2), 173-180 CODEN: JMACEP; ISSN: 0959-9428

Document Type

Journal

Language

English

#### L19 ANSWER 11 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

New, efficient electroluminescent materials based on organometallic Ir complexes

Author/Inventor

Grushin, Vladimir V.; Herron, Norman; LeCloux, Daniel D.; Marshall, William J.; Petrov, Viacheslav A.; Wang, Ying

Patent Assignee/Corporate Source

Central Research and Development, Experiment Station, E. I. DuPont de Nemours and Co., Inc., Wilmington, DE, 19880-0328, USA

Ch

Chemical Communications (Cambridge, United Kingdom) (2001), (16), 1494-1495 CODEN: CHCOFS; ISSN: 1359-7345

Document Type

Journal

Language

Source

English

# L19 ANSWER 12 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Preparation of novel 2-(2-pyridyl)pyrimidine derivatives as co-catalysts

Author/Inventor

Shintou, Taichi

Patent Assignee/Corporate Source

Sankio Chemical Co., Ltd., Japan

Source

PCT Int. Appl., 23 pp. CODEN: PIXXD2

Document Type

Patent

Language

Japanese

Patent Information

Tatom momaton					
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	WO 2001019815	A1	20010322	WO 2000-JP6233	20000912

Patent Number (1)

WO 2001019815

Kind Code (1)

A1

Patent Publication Date (1)

20010322

Application Number (1)

WO 2000-JP6233

Application Date (1)

20000912

Priority Patent Number (1)

JP 1999-259456

Priority Kind Code (1)

Priority Patent Publication Date (1)

19990913

### L19 ANSWER 13 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Conducting polymers from polyvinylquinoxalines for semiconductor devices

Author/Inventor

Sage, Ian Charles; Wood, Emma Louise; Till, Stephen John; Feast, William James; Peace, Richard John

Patent Assignee/Corporate Source

The Secretary of State for Defence, UK

PCT Int. Appl., 34 pp. CODEN: PIXXD2

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000070692	<u>A1</u>	20001123	WO 2000-GB1692	20000503

Patent Number (1)

WO 2000070692

Kind Code (1)

Α1

Patent Publication Date (1)

20001123

Application Number (1)

WO 2000-GB1692

Application Date (1)

20000503

Priority Patent Number (1)

GB 1999-10964

Priority Kind Code (1)

Priority Patent Publication Date (1)

19990512

### L19 ANSWER 14 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Organic electroluminescent devices

Author/Inventor

Nakatsuka, Masakatsu; Kitamoto, Noriko

Patent Assignee/Corporate Source

Mitsui Chemicals Inc., Japan

Source

Jpn. Kokai Tokkyo Koho, 17 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11265787	<u>A</u>	19990928	JP 1998-367681	19981224

Patent Number (1)

JP 11265787

Kind Code (1)

Patent Publication Date (1)

19990928

Application Number (1)

JP 1998-367681

Application Date (1) 19981224

Priority Patent Number (1)

JP 1998-5102

Priority Kind Code (1)

Α

Priority Patent Publication Date (1)

19980113

# L19 ANSWER 15 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Light-emitting dendrimers and devices

Author/Inventor

Samuel, Ifor David William; Halim, Mounir; Burn, Paul Leslie; Pillow, Jonathan Nigel Gerard

Patent Assignee/Corporate Source

ISIS Innovation Limited, UK

Source

PCT Int. Appl., 71 pp. CODEN: PIXXD2

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9921935	<u>A1</u>	<u>19990506</u>	WO 1998-GB3172	<u>19981023</u>

Patent Number (1)

WO 9921935

Kind Code (1)

ΑÌ

Patent Publication Date (1)

19990506

Application Number (1)

WO 1998-GB3172

Application Date (1)

19981023

Priority Patent Number (1)

GB 1997-22348

Priority Kind Code (1)

Α

Priority Patent Publication Date (1)

19971023

# L19 ANSWER 16 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

An organic light emitting device containing a protection layer

Author/Inventor

Thompson, Mark E.; Forrest, Stephen R.; Burrows, Paul; Garbuzov, Dmitri Z.; Shen, Zilan; Cronin, Jon A.; et al.

Patent Assignee/Corporate Source

The Trustees of Princeton University, USA; The University of Southern California

Source

PCT Int. Appl., 107 pp. CODEN: PIXXD2

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9828767	A1	19980702	WO 1997-US23952	19971223

Patent Number (1)

WO 9828767

Kind Code (1)

Α1

Patent Publication Date (1)

19980702

Application Number (1)

WO 1997-US23952

Application Date (1)

19971223

Priority Patent Number (1)

US 1996-771815

Priority Kind Code (1)

Α

Priority Patent Publication Date (1)

L19 ANSWER 17 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Polymer light emitting diode

Author/Inventor

Samuel, Ifor David William; Monkman, Andrew; Rebourt, Eymard; Dailey, Stuart

Patent Assignee/Corporate Source

University of Durham, UK; Samuel, Ifor David William; Monkman, Andrew; Rebourt, Eymard; Dailey, Stuart

Source

PCT Int. Appl., 40 pp. CODEN: PIXXD2

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9820565	<u>A1</u>	<u>19980514</u>	WO 1997-GB3019	<u>19971107</u>

Patent Number (1)

WO 9820565

Kind Code (1) A1

Patent Publication Date (1)

19980514

Application Number (1)

WO 1997-ĠB3019

Application Date (1)

19971107

Priority Patent Number (1)

GB 1996-23204

Priority Kind Code (1)

Α

Priority Patent Publication Date (1)

19961107

L19 ANSWER 18 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Mixed vapor deposited films for electroluminescent devices

Author/Inventor

Forrest, Stephen R.; Thompson, Mark E.; Burrows, Paul E.; Sapochak, Linda S.; McCarty, Dennis M.; Cronin, Jon A.

Patent Assignee/Corporate Source

Trustees of Princeton University, USA; University of Southern California

Source

PCT Int. Appl., 103 pp. CODEN: PIXXD2

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9806242	A1	19980212	WO 1997-US12654	19970718

Patent Number (1)

WO 9806242

Kind Code (1)

A1

Patent Publication Date (1)

19980212

Application Number (1)

WO 1997-US12654

Application Date (1)

19970718

Priority Patent Number (1)

US 1996-693359

Priority Kind Code (1)

Priority Patent Publication Date (1)

19960806

Title

Organic electroluminescent device containing ellagic acid derivative phosphor

Author/Inventor

Onishi, Toshihiro; Noguchi, Kiminobu; Doi, Shuji

Patent Assignee/Corporate Source

Sumitomo Chemical Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 7 pp. CODEN: JKXXAF

Document\_Type

Patent

Language

Japanese

Patent Information

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 09302337	Α	19971125	JP 1996-123565	19960517

Patent Number (1)

JP 09302337

Kind Code (1)

Α

Patent Publication Date (1)

19971125

Application Number (1)

JP 1996-123565

Application Date (1)

19960517

Priority Patent Number (1)

JP 1996-123565

Priority Patent Publication Date (1)

19960517

# L19 ANSWER 20 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Organic electroluminescent device

Author/Inventor

Hamada, Juji; Sano, Kenji; Fujii, Takanori; Shibata, Kenichi

Patent Assignee/Corporate Source

Sanyo Denki KK, Japan; Sanyo Electric Co., Ltd.

Source

Jpn. Kokai Tokkyo Koho, 8 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

· short intermediate					
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	JP 08199163	Α	19960806	JP 1995-28740	19950124

Patent Number (1)

JP 08199163

Kind Code (1)

Patent Publication Date (1)

19960806

Application Number (1)

JP 1995-28740

Application Date (1)

19950124

Priority Patent Number (1)

JP 1995-28740

Priority Kind Code (1)

Priority Patent Publication Date (1)

19950124

# L19 ANSWER 21 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Use of <u>pyrimidine</u> group-containing conjugated compounds as <u>electroluminescent</u> materials

Author/Inventor

Gompper, Rudolf; Brandl, Stefan; Mair, Hans-Juergen

Patent Assignee/Corporate Source

Hoechst A.-G., Germany; Covion Organic Semiconductors GmbH

Source

Eur. Pat. Appl., 27 pp. CODEN: EPXXDW

Document Type

Patent

Language

German

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 690052	<u>A2</u>	<u>19960103</u>	EP 1995-109928	<u>19950626</u>

Patent Number (1)

EP 690052

Kind Code (1)

A2

Patent Publication Date (1)

19960103

Application Number (1)

EP 1995-109928

Application Date (1)

19950626

Priority Patent Number (1)

DE 1994-4423098

Priority Kind Code (1)

Priority Patent Publication Date (1)

19940701

## L19 ANSWER 22 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Electroluminescent device with high luminance

Author/Inventor

Shibata, Toyoko; Suzuki, Shinichi

Patent Assignee/Corporate Source

Konishiroku Photo Ind, Japan

Source

Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07292353	<u>A</u>	<u>19951107</u>	<u>JP 1994-90046</u>	<u>19940427</u>

Patent Number (1)

JP 07292353

Kind Code (1)

Α

Patent Publication Date (1)

19951107

Application Number (1)

JP 1994-90046

Application Date (1)

19940427

Priority Patent Number (1)

JP 1994-90046

Priority Patent Publication Date (1)

19940427

# L19 ANSWER 23 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Alkyl-substituted poly(2,5-pyrimidinediyl) and their manufacture

Author/Inventor

Yamamoto, Ryuichi; Takahashi, Hiroshi

Patent Assignee/Corporate Source

Showa Denko Kk, Japan

Source

Jpn. Kokai Tokkyo Koho, 6 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07196780	<u>A</u>	<u>19950801</u>	JP 1993-352789	<u>19931229</u>

Patent Number (1)

JP 07196780

Kind Code (1)

Patent Publication Date (1)

19950801

Application Number (1)

JP 1993-352789

Application Date (1)

19931229

Priority Patent Number (1)

JP 1993-352789

Priority Patent Publication Date (1)

19931229

# L19 ANSWER 24 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

**Electroluminescent** devices using aromatic vinyl compounds

Author/Inventor

Tanioka, Soji; Onda, Yoshiro; Takahashi, Yukio; Maruyama, Kazumasa

Patent Assignee/Corporate Source

Shin-Etsu Kagaku Kogyo K. K., Japan

Source

Jpn. Kokai Tokkyo Koho, 5 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

# Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04046987	<u>A</u>	<u>19920217</u>	<u>JP 1990-155095</u>	<u>19900615</u>

Patent Number (1)

JP 04046987

Kind Code (1)

Α

Patent Publication Date (1)

19920217

Application Number (1)

JP 1990-155095

Application Date (1)

19900615

Priority Patent Number (1)

JP 1990-155095

Priority Patent Publication Date (1)

19900615

# L19 ANSWER 25 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Liquid crystal components with a trimethylenoxy group

Author/Inventor

Kelly, Stephen

Patent Assignee/Corporate Source

Hoffmann-La Roche, F., und Co. A.-G., Switz.

Source

Eur. Pat. Appl., 37 pp. CODEN: EPXXDW

Document Type

Patent

Language

German

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 344557	<u>A2</u>	<u>19891206</u>	EP 1989-109129	<u>19890520</u>

Patent Number (1)

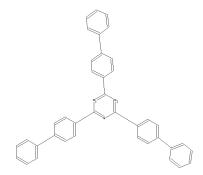
EP 344557

Kind Code (1)

A2
Patent Publication Date (1)
19891206
Application Number (1)
EP 1989-109129
Application Date (1)
19890520
Priority Patent Number (1)
CH 1988-2093
Priority Kind Code (1)
A
Priority Patent Publication Date (1)
19880601

=> =>

=>



ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

chain bonds :

2-8 4-7 6-9 12-25 17-26 22-27

ring bonds :

exact/norm bonds :

1-2 1-6 2-3 2-8 3-4 4-5 4-7 5-6 6-9 12-25 17-26 22-27

normalized bonds :

 $7-10 \quad 7-14 \quad 8-15 \quad 8-19 \quad 9-20 \quad 9-24 \quad 10-11 \quad 11-12 \quad 12-13 \quad 13-14 \quad 15-16 \quad 16-17 \quad 17-18 \quad 18-19 \quad 20-21 \quad 21-22 \quad 22-23 \quad 23-24 \quad 25-33 \quad 25-37 \quad 26-28 \quad 26-32 \quad 27-38 \quad 27-42 \quad 28-29 \quad 29-30 \quad 30-31 \quad 31-32 \quad 33-34 \quad 34-35 \quad 35-36 \quad 36-37 \quad 38-39 \quad 39-40 \quad 40-41 \quad 41-42$ 

G1:C,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 30:Atom 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom 37:Atom 38:Atom 39:Atom 40:Atom 41:Atom 42:Atom

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L20
        STRUCTURE UPLOADED
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=> s 120 sss sam

SAMPLE SEARCH INITIATED 11:43:14 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED -362 TO ITERATE

100.0% PROCESSED 362 ITERATIONS 6 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\* BATCH \*\*COMPLETE\*\* PROJECTED ITERATIONS: 6099 TO 8381 PROJECTED ANSWERS: 6 TO 266

6 SEA SSS SAM L20

=> s 120 sss full

FULL SEARCH INITIATED 11:43:19 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED -7272 TO ITERATE

100.0% PROCESSED 7272 ITERATIONS 73 ANSWERS

SEARCH TIME: 00.00.01

73 SEA SSS FUL L20

=> s 122

L23 82 L22

=> s 123 and py<=2003 23979567 PY<=2003 L24 16 L23 AND PY<=2003

=> d 124 1-16 ibib hitstr

### L24 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Electroluminescent materials and electroluminescent elements using them

Author/Inventor

Kita, Hiroshi; Suzuri, Yoshiyuki; Yamada, Taketoshi; Nakamura, Kazuaki; Ueda, Noriko; Okubo, Yasushi

Patent Assignee/Corporate Source

Konica Corporation, Japan

Source

U.S. Pat. Appl. Publ., 60pp., Cont.-in-part of U.S. Ser. No. 653,842. CODEN: USXXCO

Document Type Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2007020485	A1	20070125	US 2006-493108	20060726

Patent Number (1)

US 2007020485

Kind Code (1)

A1

Patent Publication Date (1)

20070125

Application Number (1)

US 2006-493108

Application Date (1)

20060726

Priority Patent Number (1)

JP 1998-370452

Priority Kind Code (1)

Priority Patent Publication Date (1)

19981225

# L24 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Organic electroluminescent device and display with phenyl pyridine derivative

Author/Inventor

Kita, Hiroshi; Yamada, Taketoshi; Matsuura, Mitsunobu; Inoue, Yoshio; Oi, Shuichi; Takayama, Shoichi

Patent Assignee/Corporate Source

Konica Co., Japan

Source

Jpn. Kokai Tokkyo Koho, 26 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003282270	Α	20031003	JP 2002-82918	20020325

Patent Number (1)

JP 2003282270

Kind Code (1)

Α

Patent Publication Date (1)

20031003

Application Number (1)

JP 2002-82918

Application Date (1)

20020325

Priority Patent Number (1)

JP 2002-82918

Priority Patent Publication Date (1)

20020325

### L24 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Binuclear and Starburst Organoplatinum(II) Complexes of 2,2'-Dipyridylamino Derivative Ligands: Structures, Fluxionality, and Luminescence

Author/Inventor

Liu, Qin-De; Jia, Wen-Li; Wu, Gang; Wang, Suning

Patent Assignee/Corporate Source

Department of Chemistry, Queen's University, Kingston, ON, K7L 3N6, Can.

Source

Organometallics (2003), 22(18), 3781-3791 CODEN: ORGND7; ISSN: 0276-7333

Document Type

Journal

Language

English

### L24 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Organic light emitting devices

Author/Inventor

Aziz, Hany; Hu, Nan-Xing; Hor, Ah-Mee; Popovic, Zoran D.

Patent Assignee/Corporate Source

Xerox Corporation, USA

Source

Eur. Pat. Appl., 31 pp. CODEN: EPXXDW

Document Type

Patent

Language

English Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1311009	<u>A2</u>	<u>20030514</u>	EP 2002-25109	<u>20021108</u>

Patent Number (1)

EP 1311009

Kind Code (1)

A2

Patent Publication Date (1)

20030514

Application Number (1)

EP 2002-25109

Application Date (1)

20021108

Priority Patent Number (1)

US 2001-5930

Priority Kind Code (1)

Α

Priority Patent Publication Date (1)

20011108

L24 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Organic light emitting devices

Author/Inventor

Aziz, Hany; Hu, Nan-Xing; Vong, Cuong; Hor, Ah-Mee; Popovic, Zoran D.

Patent Assignee/Corporate Source

Xerox Corporation, USA

Source

U.S. Pat. Appl. Publ., 21 pp. CODEN: USXXCO

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>US 2003087125</u>	<u>A1</u>	<u>20030508</u>	<u>US 2001-5993</u>	<u>20011108</u>

Patent Number (1)

US 2003087125

Kind Code (1)

ΑÌ

Patent Publication Date (1)

20030508

Application Number (1)

US 2001-5993

Application Date (1)

20011108

Priority Patent Number (1)

US 2001-5993 Priority Patent Publication Date (1)

20011108

L24 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Aromatic heterocyclic derivatives and organic electroluminescent device using them Author/Inventor

Matsuura, Mitsunobu; Yamada, Taketoshi; Kita, Hiroshi

Patent Assignee/Corporate Source

Konica Co., Japan

Source

Jpn. Kokai Tokkyo Koho, 38 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003045662	Α	20030214	JP 2001-233461	20010801

Patent Number (1)

JP 2003045662

Kind Code (1)

Α

Patent Publication Date (1)

20030214

Application Number (1)

JP 2001-233461

Application Date (1)

20010801

Priority Patent Number (1)

JP 2001-233461

Priority Patent Publication Date (1)

20010801

Title

Electroluminescent (EL) devices

Author/Inventor

Hu, Nan-Xing; Aziz, Hany; Jain, Poonam; Popovic, Zoran D.

Patent Assignee/Corporate Source

Xerox Corporation, USA

Source

U.S. Pat. Appl. Publ., 46 pp. CODEN: USXXCO

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002132134	A1	20020919	US 2001-771311	20010126

Patent Number (1)

US 2002132134

Kind Code (1)

Α1

Patent Publication Date (1)

20020919

Application Number (1)

US 2001-771311

Application Date (1)

20010126

Priority Patent Number (1)

US 2001-771311

Priority Kind Code (1)

Priority Patent Publication Date (1)

20010126

#### L24 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Triazine compositions

Author/Inventor

Hu, Nan-Xing; Popovic, Zoran D.; Ong, Beng S.; Aziz, Hany

Patent Assignee/Corporate Source

Xerox Corporation, USA

Source

U.S., 19 pp., Cont.-in-part of U.S. 6,057,048. CODEN: USXXAM

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>US 6229012</u>	<u>B1</u>	<u>20010508</u>	<u>US 2000-489527</u>	<u>20000121</u>

Patent Number (1)

US 6229012

Kind Code (1)

B1

Patent Publication Date (1)

20010508

Application Number (1) US 2000-489527

Application Date (1)

20000121

Priority Patent Number (1)

US 1998-164753

Priority Kind Code (1)

A2

Priority Patent Publication Date (1)

19981001

# L24 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Triazine derivatives and electroluminescent (EL) devices using them

Author/Inventor

Esteghamatian, Mohammad; Hu, Nan-xing; Popovic, Zoran D.; Hor, Ah-mee; Ong, Beng S.

Patent Assignee/Corporate Source

Xerox Corporation, USA

Source

U.S., 21 pp. CODEN: USXXAM

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6225467	<u>B1</u>	<u>20010501</u>	<u>US 2000-489754</u>	20000121

Patent Number (1)

US 6225467

Kind Code (1)

ΒÌ

Patent Publication Date (1)

20010501

Application Number (1)

US 2000-489754

Application Date (1)

20000121

Priority Patent Number (1)

US 2000-489754

Priority Patent Publication Date (1)

20000121

### L24 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Electroluminescent material, electroluminescent element and color conversion filter

Author/Inventor

Kita, Hiroshi; Suzuri, Yoshiyuki; Yamada, Taketoshi; Nakamura, Kazuaki; Ueda, Noriko; Okubo, Yasushi

Patent Assignee/Corporate Source

Konica Corporation, Japan

Source

Eur. Pat. Appl., 80 pp. CODEN: EPXXDW

Document Type

Patent

Language

English
Patent Information

atent information						
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
	EP 1013740	A2	20000628	EP 1999-125813	19991223	

Patent Number (1)

EP 1013740

Kind Code (1)

Αè

Patent Publication Date (1)

20000628

Application Number (1)

EP 1999-125813

Application Date (1)

19991223

Priority Patent Number (1)

JP 1998-370452

Priority Kind Code (1)

Α

Priority Patent Publication Date (1)

19981225

## L24 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Amino compound, manufacture of the compound, and its use in electrophotographic photoconductor and electroluminescent device

Author/Inventor

Fujino, Yasumitsu; Ueda, Hideaki; Furukawa, Keiichi

Patent Assignee/Corporate Source

Minolta Camera Co., Ltd., Japan

Source

Jpn. Kokai Tokkyo Koho, 32 pp. CODEN: JKXXAF

Document Type

Patent

Language

Japanese

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000169448	<u>A</u>	20000620	JP 1998-346820	<u>19981207</u>

Patent Number (1)

JP 2000169448

Kind Code (1)

Patent Publication Date (1)

20000620

Application Number (1)

JP 1998-346820

Application Date (1)

19981207

Priority Patent Number (1)

JP 1998-346820

Priority Patent Publication Date (1)

19981207

### L24 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Electroluminescent (EL) devices

Author/Inventor

Hu, Nan-xing; Esteghamatian, Mohammad; Qi, Yu; Popovic, Zoran D.; Ong, Beng S.; Hor, Ah-mee

Patent Assignee/Corporate Source

Xerox Corp., USA

Source

U.S., 31 pp. CODEN: USXXAM

Document Type

Patent

Language

English

i atem information			
PATENT NO.	KIND	DATE	APF

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6057048	Α	20000502	US 1998-164753	19981001

Patent Number (1)

US 6057048

Kind Code (1)

Patent Publication Date (1)

20000502

Application Number (1)

US 1998-164753

Application Date (1)

19981001

Priority Patent Number (1)

US 1998-164753

Priority Kind Code (1)

A2

Priority Patent Publication Date (1)

19981001

### L24 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Self-assembly of ten molecules into a nanometer-sized organic host frameworks

Author/Inventor

Fujita, Makoto; Oguro, Daichi; Miyazawa, Mayumi; Oka, Hiroko; Yamaguchi, Kentaro; Ogura, Katsuyuki

Patent Assignee/Corporate Source

Fac. Eng., Chiba Univ., Chiba, 263, Japan

Source

Nature (London) (1995), 378(6556), 469-71 CODEN: NATUAS; ISSN: 0028-0836

Document Type

Journal

Language

English

# L24 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

Heteroaroxyls, III. Methoxy- and hydroxytriphenylpyridines as precursors for oxyl radicals of heterocycles, 1 Author/Inventor Teuber, Hans Joachim; Schuetz, Guenther; Bader, Hans J. Patent Assignee/Corporate Source Inst. Org. Chem., Univ. Frankfurt, Frankfurt/Main, Fed. Rep. Ger. Source Justus Liebigs Annalen der Chemie (1977), (8), 1321-34 CODEN: JLACBF; ISSN: 0075-4617 Document Type Journal Language German L24 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN Title Ring extension in the pyrrole series. Electrochemical oxidation of two 2,3,4,5-tetraarylpyrroles in nitromethane Author/Inventor Libert, Michel; Caullet, Claude Patent Assignee/Corporate Source Groupe Rech. Chim. Anal., Inst. Sci. Haute-Normandie, Mont-Saint-Aignan, Fr. Source Comptes Rendus des Seances de l'Academie des Sciences, Serie C: Sciences Chimiques (1973), 276(13), 1073-6 CODEN: CHDCAQ; ISSN: 0567-6541 Document Type Journal Language French L24 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN Title Dyeing synthetic polyamide fibers with triazine dyes Author/Inventor Kimura, Hiroo; Arimoto, Heiji; Tsuneshita, Tomonari; Kanno, Mitsuyoshi Patent Assignee/Corporate Source Yunichika Co. Source Jpn. Tokkyo Koho, 4 pp. CODEN: JAXXAD Document Type Patent Language Japanese Patent Information PATENT NO KIND DATE APPLICATION NO. DATE JP 45030072 B4 19700930 JΡ 19680620 Patent Number (1) JP 45030072 Kind Code (1) B4 Patent Publication Date (1) 19700930 Application Number (1) JΡ Application Date (1) 19680620 => ---Logging off of STN---Connection closed by remote host END Unable to generate the STN prompt. Exiting the script...

Connecting via Winsock to STN

Welcome to STN International! Enter x:X

LOGINID:SSPTAMEN1774

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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11
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23

chain nodes :

25

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

chain bonds :

1-25 2-8 4-7 6-9

ring bonds :

exact bonds :

1-25 2-8 4-7 6-9

normalized bonds :

 $1-2 \ 1-6 \ 2-3 \ 3-4 \ 4-5 \ 5-6 \ 7-10 \ 7-14 \ 8-15 \ 8-19 \ 9-20 \ 9-24 \ 10-11 \ 11-12 \ 12-13 \ 13-14 \ 15-16 \ 16-17 \ 17-18 \ 18-19 \ 20-21 \ 21-22 \ 22-23 \ 23-24$ 

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## L1 STRUCTURE UPLOADED

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100.0% PROCESSED 7394 ITERATIONS SEARCH TIME: 00.00.01
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4 ITERATIONS

589 ANSWERS

L2 589 SEA SSS FUL L1

=> s 12 and prep/rl 159 L2

4541185 PREP/RL

L3 120 L2 AND PREP/RL

=> s 13 and py <= 2003

23979572 PY<=2003

L4 84 L3 AND PY<=2003

=> s 13 and py<=2002

22929158 PY<=2002

L5 83 L3 AND PY<=2002

=> d 15 1-10 ibib abs

## L5 ANSWER 1 OF 83 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Cross-coupling reactions with boronic acids in water catalysed by oxime-derived palladacycles

Author/Inventor

Botella, Luis; Najera, Carmen

Patent Assignee/Corporate Source

Departamento de Quimica Organica, Facultad de Ciencias, Universidad de Alicante, Alicante, E-03080, Spain

Source

Journal of Organometallic Chemistry (2002), 663(1-2), 46-57 CODEN: JORCAI: ISSN: 0022-328X

Document Type

Journal

Language

English

Abstract

Palladacycles derived from phenone-oximes I (R1 = Me, R2 = H; R1 = Me, R2 = OH; R1 = 4-HOC6H4, R2 = OH) are efficient precatalysts for the Suzuki-Miyaura coupling of arylboronic acids 4-RC6H4B(OH)2 (R = H, CF3, Me, F) with aromatic and heteroarom. bromides and chlorides, e.g. 4-R3C6H4R4 (R3 = Br, CI, R4 = COMe, OMe), under water-refluxing aerobic conditions to give different biaryls, e.g. 4-RC6H4C6H4R4-4. Alternatively, the coupling can also be carried out at room temperature in methanol-water. Aryl bromides gave biaryls with TON (turnover nos.) up to 105 and TOF (turnover frequencies) up to 7 + 104 h-1. Activated and deactivated aryl chlorides need the presence of TBAB for the couplings, showing slightly lower efficiency (TON up to 9000 and TOF up to 3850 h-1). C(sp2)-C(sp3) bonds can also be formed by cross-coupling reactions of trimethylboroxine and butylboronic acid with aromatic bromides and chlorides under water reflux and of benzylic and allylic chlorides or acetates with arylboronic acids in acetone-water at room temperature

#### L5 ANSWER 2 OF 83 CAPLUS COPYRIGHT 2008 ACS on STN

Title

A convenient method for the preparation of highly substituted pyrimidines: Synthesis of tri- and tetra-substituted pyrimidines from 1,3-dicarbonyl compounds and N,N,N'-tris-(trimethylsilyl)amidines

Author/Inventor

Ghosh, Usha; Katzenellenbogen, John A.

Patent Assignee/Corporate Source

Department of Chemistry, University of Illinois, Urbana, IL, 61801, USA

Source

Journal of Heterocyclic Chemistry (2002), 39(5), 1101-1104 CODEN: JHTCAD; ISSN: 0022-152X

Document Type

Journal

Language

English Abstract

A modification of the Pinner pyrimidine synthesis has been developed that utilizes trimethylsilyl amidine I and results in greatly improved yield of highly substituted pyrimidines, e.g. II.

# L5 ANSWER 3 OF 83 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Preparation of aromatic carboxylic acids as Flt-1 ligands.

Author/Inventor

Arrhenius, Thomas; Huang, Yujin; Zhang, Lin; Serafimov, Rossy; Nadzan, Alex; Spinella, Dominic

Patent Assignee/Corporate Source

Chugai Seiyaku Kabushiki Kaisha, Japan

Source

PCT Int. Appl., 38 pp. CODEN: PIXXD2

Document Type

Patent

Language

English

Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002076438	<u>A2</u>	<u>20021003</u>	WO 2002-US8862	<u>20020321</u>

Patent Number (1)

WO 2002076438

Kind Code (1)

A2

Patent Publication Date (1)

20021003

Application Number (1)

WO 2002-US8862

Application Date (1)

20020321

Priority Patent Number (1)

US 2001-278156P

Priority Kind Code (1)

Р

Priority Patent Publication Date (1)

20010323

Abstract

R1R2WAr [W = Ph, pyridyl, pyrimidyl, oxadiazolyl, triazolyl; Ar = (substituted) aryl; R1 = R4VB, Q1, Q2; A = (substituted) Ph, amino, amido, ester, O; B = oxy, alkoxy, arylcarbonyl, arylcarbonylamino, bond, carbonyloxy; V = Ph, furyl, thienyl, pyridyl, pyrrolyl; X, Y = H; XY = O; Z = O, N, S; R2 = aryl, H, OH, halo, CO2H, R1; R3 = 1-2 of OH, alkoxy, NO2, sulfoxy, carboxy ester, etc.; R4 = 1-2 of amino, alkoxy, NO2, CO2H, OH, alkoxyalkyl, alkylthio, halo, haloalkyl, alkyl, Ph, pyridyl, etc.; ≥1 of R3, R4 = CO2H, CO2H-substituted radical], were prepared Thus, Et 4-nitrobenzoylacetate and benzamidine hydrochloride were refluxed 5 h in EtOH to give 88% 6-(4-nitrophenyl)-2-phenylpyrimidin-4-ol. The latter was heated with Me 4-bromomethylbenzoate Et3N in DMF at 80° for 1 h to give 93% Me 4-[[[6-(4-nitrophenyl)-2-phenylpyrimidin-4-yl]oxy]methyl]benzoate. Reflux of this with Fe and HOAc in EtOH for 8 h gave 97% Me 4-[[[6-(4-aminophenyl)-2-phenylpyrimidin-4-yl]oxy]methyl]benzoate. The amine was heated with 1,2,4-benzenetricarboxylic anhydride in PhMe at 150° for 30 min. to give 66% 2-[4-[6-[[4-(methoxycarbonyl)benzyl]oxy]-2-phenylpyrimidin-4-yl]phenyl]-1,3-dioxoisoindoline-5-carboxylic acid, which was stirred with aqueous KOH in THF for 24 h to give 35% 2-[4-[6-[(4-carboxybenzyl)oxy]-2-phenylpyrimidin-4-yl]phenyl]-1,3-dioxoisoindoline-5-carboxylic acid.

#### L5 ANSWER 4 OF 83 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Reaction of  $\alpha,\alpha$ -Dibromo Oxime Ethers with Grignard Reagents: Alkylative Annulation Providing a Pyrimidine Core

Author/Inventor

Kakiya, Hirotada; Yagi, Kazunari; Shinokubo, Hiroshi; Oshima, Koichiro

Patent Assignee/Corporate Source

Graduate School of Engineering, Department of Material Chemistry, Kyoto University, Kyoto, 606-8501, Japan

Source

Journal of the American Chemical Society (2002), 124(31), 9032-9033 CODEN: JACSAT; ISSN: 0002-7863

Document Type

Journal

Language

English

Abstract

A convergent synthesis of a pyrimidine core has been achieved. Treatment of  $\alpha$ , $\alpha$ -dibromo oxime ethers, which are easily derived from the corresponding esters, with a variety of Grignard reagents provides trisubstituted pyrimidines in good yields. This new method offers easy access to functionalized pyrimidines.

#### L5 ANSWER 5 OF 83 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Formation of hexagonal columnar phases by heterocyclic pyrimidine derivatives

Author/Inventor

Lin, Yang-Chu; Lai, Chung K.; Chang, Yuan-Chieh; Liu, Kwang-Ting

Patent Assignee/Corporate Source

Department of Chemistry, National Taiwan University, Taipei, 104, Taiwan

Source

Liquid Crystals (2002), 29(2), 237-242 CODEN: LICRE6; ISSN: 0267-8292

Document Type

Journal

Language

English

Abstract

The synthesis, characterization, and mesomorphic properties of a new type of heteronuclear compds. derived from pyrimidine as core group are reported. These compds. were prepared by condensation reactions of appropriate acetophenones and benzonitriles in the presence of trifluoromethanesulfonic anhydride. They were characterized by 1H and 13C NMR spectroscopy and elemental

anal., and their phase transitions characterized and studied by thermal anal, and polarizing microscopy. These compds, exhibit hexagonal columnar (Colh) phases, as expected for disk-like mols; the formation of columnar phases is dependent on the nos. of alkoxy side chains attached. For those compds, having the same nos, of flexible side chains attached, the one with a preferred unsym. structure exhibited better mesomorphic properties. The observed improved mesomorphic behavior of these compds. over other similar all-C heterocyclic compds. is attributed to the greater polarization of N atoms in the core ring.

#### L5 ANSWER 6 OF 83 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Arylation of Halogenated Pyrimidines via a Suzuki Coupling Reaction

Author/Inventor

Schomaker, Jennifer M.; Delia, Thomas J.

Patent Assignee/Corporate Source

Malcolm H. Filson Laboratories Department of Chemistry, Central Michigan University, Mt. Pleasant, MI, 48859, USA

Source

Journal of Organic Chemistry (2001), 66(21), 7125-7128 CODEN: JOCEAH; ISSN: 0022-3263

Document Type

Journal

Language

English

Abstract

The Suzuki coupling reaction was used extensively for the synthesis of a wide variety of unsym, biaryl compds. The authors have extended this reaction to demonstrate the utility of preparing monophenyl-, diphenyl-, or triphenylpyrimidine depending on the reaction conditions. Further, chloropyrimidine substrates are preferable over iodo-, bromo-, or fluoropyrimidines.

### L5 ANSWER 7 OF 83 CAPLUS COPYRIGHT 2008 ACS on STN

Synthesis of 2,4,6-tris[4-(N- isopropylamidino)phenyl]pyrimidine trihydrochloride

Author/Inventor

Bajic, Miroslav; Boykin, David W.

Patent Assignee/Corporate Source

Department of Organic Chemistry, Faculty of Chemical Engineering and Technology, University of Zagreb, Zagreb, 10000, Croatia

Source

Molecules [online computer file] (2001), 6(5), 477-480 CODEN: MOLEFW; ISSN: 1420-3049 URL:

http://www.mdpi.org/molecules/papers/60500477.pdf

Document Type

Journal; (online computer file)

Language

English

Abstract

The title compound, I [R = C(:NH)NHCHMe2]·3HCl, is prepared from 1,3-bis(4-bromophenyl)-2-propen-1-one and 4bromobenzamidine via I (R = Br) and I (R = CN).

# L5 ANSWER 8 OF 83 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Symmetric building blocks and combinatorial functional group transformation as versatile strategies in combinatorial chemistry Author/Inventor

Fruchtel, Jorg Steffen; Pflugseder, Karin; Gstach, Hubert

Patent Assignee/Corporate Source

Novartis Forschungsinstitut Wien, Vienna, A-1235, Austria

Source

Biotechnology and Bioengineering (2001), Volume Date 2000-2001, 71(2), 94-103 CODEN: BIBIAU; ISSN: 0006-3592

Document Type

Journal

Language English

Abstract

The dicarboxamides I [X = (CH2)5, 1,4-C6H4, 2,5-thiophenediyl, 3,5-pyridinediyl; R = (un)substituted Ph, 2-pyridyl, 2-thienyl; R1 = cyclopropyl, CMe3, 1-adamantyl, (un)substituted Ph, 3-pyridyl, 2-thienyl] were prepared by treating Tenta-Gel Rink amide resin with X(CO2H)2, followed by 3-H2NC6H4COMe, RCHO, and R1C(:NH)NH2, and cleaving from the resin.

## L5 ANSWER 9 OF 83 CAPLUS COPYRIGHT 2008 ACS on STN

Title

A novel three-component one-pot pyrimidine synthesis based upon a coupling-isomerization sequence

Author/Inventor

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Patent Assignee/Corporate Source

Department Chemie, Ludwig-Maximilians-Universitaet Muenchen, Munich, D-81377, Germany

Source

Organic Letters (2000), 2(13), 1967-1970 CODEN: ORLEF7; ISSN: 1523-7060

Document Type

Journal

Language

English

Abstract

2,4,6-Tri(hetero)aryl-substituted pyrimidines, e.g. I, can be readily synthesized in a three-component one-pot process based upon a coupling-isomerization sequence of an electron-poor (hetero)aryl halide, e.g., 4-IC6H4NO2, and a terminal propargyl alc., e.g. II, subsequently followed by a cyclocondensation with amidinium salts.

# L5 ANSWER 10 OF 83 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Preparation of polyimides pyrimidine-containing diamines

Author/Inventor

Artem'eva, V. N.; Shamanin, V. V.; Borovik, V. P.; Shkurko, O. P.; Nekrasova, E. M.; Lyubimova, G. V.; Kudryavtsev, V. V.

Patent Assignee/Corporate Source

Inst. Vysokomol. Soedinenii, RAN, St. Petersburg, Russia

Source

Zhurnal Prikladnoi Khimii (Sankt-Peterburg) (2000), 73(1), 123-128 CODEN: ZPKHAB; ISSN: 0044-4618

Document Type

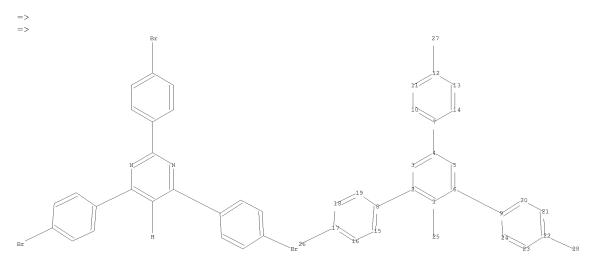
Journal

Language

Russian

Abstract

Polymerization kinetics of 3,3',4,4'-benzophenonetetracarboxylic dianhydride with a series of pyrimidine-containing diamines was studied. Kinetics of thermal imidation of polyamic acids was investigated. Pyrimidine ring plays the role of a catalyst in imidation of the polyamic acids.



chain nodes :

25 26 27 28

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

chain bonds :

1-25 2-8 4-7 6-9 12-27 17-26 22-28

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-10 7-14 8-15 8-19 9-20 9-24 10-11 11-12 12-13 13-14 15-16 16-17 17-18 18-19 20-21 21-22 22-23 23-24

exact bonds :

1-25 2-8 4-7 6-9 12-27 17-26 22-28

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-10 7-14 8-15 8-19 9-20 9-24 10-11 11-12 12-13 13-14 15-16 16-17 17-18 18-19 20-21 21-22 22-23 23-24

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Match level :
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1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:CLASS 27:CLASS 28:CLASS

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L6 STRUCTURE UPLOADED

=> s 16 exa full
FULL SEARCH INITIATED 08:35:29 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 10 TO ITERATE

100.0% PROCESSED 10 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

L7 1 SEA EXA FUL L6

=> s 17
L8 2 L7

=> d 18 1-2 ibib
```

### L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Electroluminescent devices comprising pyrimidine derivatives

Author/Inventor

Schaefer, Thomas; Bujard, Patrice; Rogers, Jonathan; Bardon, Kristina

Patent Assignee/Corporate Source

Ciba Specialty Chemicals Holding Inc., USA

Source

PCT Int. Appl., 102 pp. CODEN: PIXXD2

Document Type

Patent

Language

English Patent Information

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004039786	A1	20040513	WO 2003-EP11637	20031021

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Kind Code (1)
A1
Patent Publication Date (1)
20040513
Application Number (1)
WO 2003-EP11637
Application Date (1)
20031021
Priority Patent Number (1)
GB 2002-25244
Priority Kind Code (1)
A
Priority Patent Publication Date (1)
20021030

### L8 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

Title

Synthesis of 2,4,6-tris[4-(N- isopropylamidino)phenyl]pyrimidine trihydrochloride

Author/Inventor

Bajic, Miroslav; Boykin, David W.

Patent Assignee/Corporate Source

Department of Organic Chemistry, Faculty of Chemical Engineering and Technology, University of Zagreb, Zagreb, 10000, Croatia

Source

Molecules [online computer file] (2001), 6(5), 477-480 CODEN: MOLEFW; ISSN: 1420-3049 URL:

http://www.mdpi.org/molecules/papers/60500477.pdf

Document Type

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Journal; (online computer file)
Language
English
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